What is claimed is:

1.   A logical circuit designing device, comprising:
          a logical circuit storage unit storing a logical
5   circuit;
          a transmission line circuit generation unit
generating a transmission line circuit based on the
logical circuit stored in the logical circuit storage
unit; and
10   a transmission line circuit storage unit storing
the transmission line circuit generated by the
transmission line circuit generation unit.

2.   A logical circuit designing device, comprising:
15   a logical circuit storage unit storing a logical
circuit;
          a transmission line circuit storage unit storing
a transmission line circuit corresponding to the logical
circuit stored in the logical circuit storage unit;
20   a transmission line circuit editing unit editing
the transmission line circuit stored in the transmission
line circuit storage unit; and
          a logical circuit modification unit modifying the
corresponding logical circuit based on the transmission
25   line circuit edited by the transmission line circuit

editing unit.

3.   A logical circuit designing device, comprising:

     a logical circuit storage unit storing a logical

5   circuit;

     a transmission line circuit generation unit
generating a transmission line circuit based on the
logical circuit stored in the logical circuit storage
unit;

10   a transmission line circuit storage unit storing
the transmission line circuit generated by the
transmission line circuit generation unit;

     a transmission line circuit editing unit editing
the transmission line circuit stored in the transmission

15 line circuit storage unit; and

     a logical circuit modification unit modifying the
corresponding logical circuit based on the transmission
line circuit edited by the transmission line circuit
editing unit.

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4.   The logical circuit designing device according to
claim 1, further comprising

     a topology designation table storing topology
information indicating a type of a connection between

25 active components composing a logical circuit, and

wherein

said transmission line circuit generation unit generates a transmission line circuit based on the topology information stored in the topology designation table.

5.   The logical circuit designing device according to claim 1, further comprising

a value designation table storing a value of a passive component composing a logical circuit, and wherein

said transmission line circuit generation unit generates a transmission line circuit based on the value stored in the value designation table.

6.   The logical circuit designing device according to claim 1, further comprising

an addition designation table storing addition information of a passive component composing a logical circuit, and

wherein

said transmission line circuit generation unit generates a transmission line circuit by adding the passive component based on the passive component addition information stored in the addition designation

table.

7.   The logical circuit designing device according to
claim 1, further comprising

5   a deletion designation table storing deletion
information of a passive component composing a logical
circuit, and
wherein

         said transmission line circuit generation unit
10 generates a transmission line circuit by deleting the
passive component based on the passive component
deletion information stored in the deletion designation
table.

15 8.   The logical circuit designing device according to
claim 3, further comprising

         a topology designation table storing topology
information indicating a type of a connection between
active components composing a logical circuit, and
20 wherein

         said transmission line circuit generation unit
generates a transmission line circuit based on the
topology information stored in the topology designation
table.

25

9.   The logical circuit designing device according to claim 3, further comprising

a value designation table storing a value of a passive component composing a logical circuit, and wherein

said transmission line circuit generation unit generates a transmission line circuit based on the value stored in the value designation table.

10.   The logical circuit designing device according to claim 3, further comprising

an addition designation table storing addition information of a passive component composing a logical circuit, and

wherein

said transmission line circuit generation unit generates a transmission line circuit by adding the passive component based on the passive component addition information stored in the addition designation table.

11.   The logical circuit designing device according to claim 3, further comprising

a deletion designation table storing deletion information of a passive component composing a logical

circuit, and

wherein

said transmission line circuit generation unit
generates a transmission line circuit by deleting the
5 passive component based on the passive component
deletion information stored in the deletion designation
table.

12.   The logical circuit designing device according to
10 claim 2, wherein
said logical circuit modification unit modifies
the logical circuit stored in the logical circuit
storage unit based on the transmission line circuit
edited by the transmission line circuit editing unit.

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13.   The logical circuit designing device according to
claim 9, wherein
said logical circuit modification unit modifies
the value of a passive component of the logical circuit
20 stored in the logical circuit storage unit based on the
transmission line circuit edited by the transmission
line circuit editing unit.

14.   The logical circuit designing device according to
25 claim 10, wherein

said logical circuit modification unit modifies the passive component addition information of the logical circuit stored in the logical circuit storage unit based on the transmission line circuit edited by

5   the transmission line circuit editing unit.

15.   The logical circuit designing device according to claim 11, wherein

said logical circuit modification unit modifies

10   the passive component deletion information of the logical circuit stored in the logical circuit storage unit based on the transmission line circuit edited by the transmission line circuit editing unit.

15   16.   The logical circuit designing device according to claim 12, wherein

said logical circuit modification unit modifies the logical circuit based on a difference between the transmission line circuit edited by the transmission

20   line circuit editing unit and the logical circuit stored in the logical circuit storage unit.

17.   A logical circuit designing method, comprising:

generating a transmission line circuit based on

25   a logical circuit stored in a logical circuit database;

and

storing the generated transmission line circuit in a transmission line circuit database.

5   18.   A logical circuit designing method, comprising:

editing the transmission line circuit stored in the transmission line circuit database; and

modifying a logical circuit corresponding to the transmission line circuit based on the edited

10   transmission line circuit.

19.   A logical circuit designing method, comprising:

generating a transmission line circuit based on a logical circuit stored in a logical circuit database;

15   storing the generated transmission line circuit in a transmission line circuit database

editing the transmission line circuit stored in the transmission line circuit database; and

modifying the generated logical circuit based on

20   the edited transmission line circuit.

20.   The logical circuit designing method according to claim 17, wherein

the transmission line circuit is generated based

25   on topology information stored in a topology designation

table storing topology information indicating a type of a connection between active components composing a logical circuit, in said generating.

5 21. The logical circuit designing method according to claim 17, wherein

the transmission line circuit is generated based on a value of a passive component stored in a value designation table storing values of passive components
10 composing a logical circuit, in said generating.

22. The logical circuit designing method according to claim 17, wherein

the transmission line circuit is generated by
15 adding a passive component based on passive component addition information stored in an addition designation table storing addition information of passive components composing a logical circuit, in said generating.

20

23. The logical circuit designing method according to claim 17, wherein

the transmission line circuit is generated by deleting a passive component based on passive component
25 deletion information stored in a deletion designation

table storing deletion information of passive components composing a logical circuit, in said generating.

5   24.   The logical circuit designing method according to claim 19, wherein

the transmission line circuit is generated based on topology information stored in a topology designation table storing topology information indicating a type
10 of a connection between active components composing a logical circuit, in said generating.

25.   The logical circuit designing method according to claim 19, wherein
15 the transmission line circuit is generated based on a value stored in a value designation table storing values of passive components composing a logical circuit, in said generating.

20 26.   The logical circuit designing method according to claim 19, wherein

the transmission line circuit is generated by adding a passive component based on addition information of the passive component stored in an addition
25 designation table storing addition information of

passive components composing a logical circuit, in said generating.

27. The logical circuit designing method according to claim 19, wherein

the transmission line circuit is generated by deleting a passive component based on deletion information of the passive component stored in a deletion designation table storing deletion information of passive components composing a logical circuit, in said generating.

28. The logical circuit designing method according to claim 18, wherein

the logical circuit is modified based on the transmission line circuit edited by said editing, in said modifying.

29. The logical circuit designing method according to claim 25, wherein

the logical circuit is modified by modifying a value of a logical circuit stored in said logical circuit database based on the transmission line circuit edited by said editing, in said modifying.

30.   The logical circuit designing method according to claim 26, wherein

the logical circuit is modified by modifying passive component addition information of a logical
5   circuit stored in the logical circuit database based on the transmission line circuit edited by said editing, in said modifying.

31.   The logical circuit designing method according to
10   claim 27, wherein

the logical circuit is modified by modifying passive component deletion information of a logical circuit stored in the logical circuit database based on the transmission line circuit edited by said editing,
15   in said modifying.

32.   The logical circuit designing method according to claim 28, wherein

the logical circuit is modified based on a
20   difference between a transmission line circuit by edited by said editing and a logical circuit stored in the logical circuit database, in said modifying.

33.   A computer-readable storage medium which stores
25   a logical circuit designing program for enabling a

computer, comprising:

generating a transmission line circuit based on a logical circuit stored in a logical circuit database; and

5   storing the generated transmission line circuit in a transmission line circuit database.

34. A computer-readable storage medium which stores a logical circuit designing program for enabling a 10   computer, comprising:

editing the transmission line circuit stored in the transmission line circuit database; and

modifying a logical circuit corresponding to the transmission line circuit based on the edited 15   transmission line circuit.

35. A computer-readable storage medium which stores a logical circuit designing program for enabling a computer, comprising:

20   generating a transmission line circuit based on a logical circuit stored in a logical circuit database;

storing the generated transmission line circuit in a transmission line circuit database;

editing the transmission line circuit stored in 25   the transmission line circuit database; and

modifying a logical circuit corresponding to the transmission line circuit based on the edited transmission line circuit.

5   36.   The storage medium according to claim 33, wherein the transmission line circuit is generated based on topology information stored in a topology designation table that stores topology information indicating types of connections between active components composing a

10   logical circuit, in said generating.

37.   The storage medium according to claim 33, wherein the transmission line circuit is generated based on a value stored in a value designation table storing

15   values of passive components composing a logical circuit, in said generating.

38.   The storage medium according to claim 33, wherein the transmission line circuit is generated by

20   adding a passive component based on passive component addition information stored in an addition designation table storing addition information of passive components composing a logical circuit, in said generating.

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39.   The storage medium according to claim 33, wherein
the transmission line circuit is generated by
deleting a passive component based on passive component
addition information stored in an addition designation
5   table storing deletion information of passive
components composing a logical circuit, in said
generating.

40.   The storage medium according to claim 35, wherein
10   the transmission line circuit is generated based
on topology information stored in a topology designation
table storing types of connections between active
components composing a logical circuit, in said
generating.

15

41.   The storage medium according to claim 35, wherein
the transmission line circuit is generated based
on a value stored in a value designation table storing
values of passive components composing a logical circuit,
20   in said generating.

42.   The storage medium according to claim 35, wherein
the transmission line circuit is generated by
adding a passive component based on passive component
25   addition information stored in an addition designation

table storing addition information pf passive
components composing a logical circuit, in said
generating.

5   43.   The storage medium according to claim 35, wherein
the transmission line circuit is generated by
deleting a passive component based on passive component
addition information stored in an addition designation
table storing deletion information of passive
10   components composing a logical circuit, in said
generating.

44.   The storage medium according to claim 34, wherein
the logical circuit is modified based on the
15   transmission line circuit edited by said editing, in
said modifying.

45.   The storage medium according to claim 41, wherein
the logical circuit is modified by modifying a
20   value of a logical circuit stored in said logical circuit
database based on the transmission line circuit edited
by said editing, in said modifying.

46.   The storage medium according to claim 42, wherein
25   the logical circuit is modified by modifying

passive component addition information of a logical
circuit stored in the logical circuit database based
on the transmission line circuit edited by said editing,
in said modifying.

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47.   The storage medium according to claim 43, wherein
      the logical circuit is modified by modifying
passive component deletion information of a logical
circuit stored in the logical circuit database based
10 on the transmission line circuit edited by said editing,
in said modifying.

48.   The storage medium according to claim 44, wherein
      the logical circuit is modified based on a
15 difference between a transmission line circuit by edited
by said editing and a logical circuit stored in the
logical circuit database, in said modifying.

49.   A logical circuit designing program for enabling
20 a computer, comprising:
      generating a transmission line circuit based on
a logical circuit stored in a logical circuit database;
and
      storing the generated transmission line circuit
25 in a transmission line circuit database.

50.   A logical circuit designing program for enabling
a computer, comprising:

    editing the transmission line circuit stored in
5   the transmission line circuit database; and

    modifying a logical circuit corresponding to the
transmission   line   circuit   based   on   the   edited
transmission line circuit.

10 51. ˙ A logical circuit designing program for enabling
a computer, comprising:

    generating a transmission line circuit based on
a logical circuit stored in a logical circuit database;

    storing the generated transmission line circuit
15 in a transmission line circuit database;

    editing the transmission line circuit stored in
the transmission line circuit database; and

    modifying a logical circuit corresponding to the
transmission   line   circuit   based   on   the   edited
20 transmission line circuit.

52.   The logical circuit designing program according
to claim 49, wherein

    the transmission line circuit is generated based
25 on topology information stored in a topology designation

table that stores topology information indicating types of connections between active components composing a logical circuit, in said generating.

5   53.   The logical circuit designing program according to claim 49, wherein

the transmission line circuit is generated based on a value stored in a value designation table storing values of passive components composing a logical circuit,

10 in said generating.

54.   The logical circuit designing program according to claim 49, wherein

the transmission line circuit is generated by

15 adding a passive component based on passive component addition information stored in an addition designation table storing addition information of passive components composing a logical circuit, in said generating.

20

55.   The logical circuit designing program according to claim 49, wherein

the transmission line circuit is generated by deleting a passive component based on passive component

25 addition information stored in an addition designation

table storing deletion information of passive
components composing a logical circuit, in said
generating.

5   56.   The logical circuit designing program according
to claim 51, wherein
     the transmission line circuit is generated based
on topology information stored in a topology designation
table storing types of connections between active
10   components composing a logical circuit, in said
generating.

57.   The logical circuit designing program according
to claim 51, wherein
15   the transmission line circuit is generated based
on a value stored in a value designation table storing
values of passive components composing a logical circuit,
in said generating.

20   58.   The logical circuit designing program according
to claim 51, wherein
     the transmission line circuit is generated by
adding a passive component based on passive component
addition information stored in an addition designation
25   table storing addition information of passive

components composing a logical circuit, in said
generating.

59.   The logical circuit designing program according
to claim 51, wherein
    the transmission line circuit is generated by
deleting a passive component based on passive component
addition information stored in an addition designation
table storing deletion information of passive
components composing a logical circuit, in said
generating.

60.   The logical circuit designing program according
to claim 50, wherein
    the logical circuit is modified based on the
transmission line circuit edited by said editing, in
said modifying.

61.   The logical circuit designing program according
to claim 57, wherein
    the logical circuit is modified by modifying a
value of a logical circuit stored in the logical circuit
database based on the transmission line circuit edited
by said editing, in said modifying.

25

62.   The logical circuit designing program according to claim 58, wherein

the logical circuit is modified by modifying passive component addition information of a logical circuit stored in the logical circuit database based on the transmission line circuit edited by said editing, in said modifying.

63.   The logical circuit designing program according to claim 59, wherein

the logical circuit is modified by modifying passive component deletion information of a logical circuit stored in the logical circuit database based on the transmission line circuit edited by said editing, in said modifying.

64.   The logical circuit designing program according to claim 60, wherein

the logical circuit is modified based on a difference between a transmission line circuit by edited by said editing and a logical circuit stored in the logical circuit database, in said modifying.

65.   A logical circuit designing device, comprising:

logical circuit storage means for storing a

logical circuit;

transmission line circuit generation means for generating a transmission line circuit based on the logical circuit stored in the logical circuit storage means; and

transmission line circuit storage means for storing the transmission line circuit generated by the transmission line circuit generation means.